17 APR 1981

MEMORANDUM FOR: Deputy Director for Administration

Director, National Foreign Assessment Center

Deputy Director for Operations

Deputy Director for Science and Technology

Administrative Officer, DCI

FROM:

Maurice Lipton Comptroller

SUBJECT:

Production Enhancement Initiatives, FY 1983

and 1984

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REFERENCE:

Memorandum for National Foreign Intelligence

Program Managers from

26 March 1981, Same Subject (U)

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- 1. We have received formal notification from regarding the process to be used in developing and assessing Production Enhancement memo Initiatives for FY 1983 and 1984 (Tab A.) Attached to are the criteria that will be used in the evaluation process. These should be of assistance in your internal project selection, evaluation, and justification process. Please note the Agency list of proposed initiatives is due in the ICS on 3 July 1981. The Directorate recommended projects should be in the Office of the Comptroller by 1 June 1981 in order to review, rank, and repackage, if necessary, prior to formal submission by the Agency. It would be appreciated if the style of the attached request for the Intelligence Production Laboratory (Tab B) were followed. (S)
- 2. Given the fact that the purpose of this program is to further innovative ideas related to "production" (i.e., analysis), NFAC and ORD have taken the lead for CIA in competing for funds over the past two years. But there is no reason why the DO and the DA cannot also enter this program if they have initiatives that in their own way, will add to the quality, timeliness, or what have you of the production process. Clearly the watchword should be "nothing ventured, nothing gained." I strongly encourage that innovative ideas be passed forward, whatever their origin. Each directorate should have a basic understanding of how its FY 1983 program has fared in the EXCOM ranking prior to the deadline for submission. You may want to submit as production enhancements some innovative elements that did not make, or did not fare well, in the regular CIA 1983 program submission.
- 3. This year the Interagency Working Group on Intelligence Production will be requested to make the final selection. Please see that the project descriptions have sufficient detail and clarity to assure that the final selections made are informed ones. (S)

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4. Along with your FY 1983 submission it is necessary to report on the FY 1981-1982 initiatives that were funded via this program. The projects for which reports are required are listed below:

	FY 1981	FY 1982	
Analytic Productivity Fund NFAC			25 X 1
Political Stability in Key Developing Countries NFAC DDS&T Exploitation of Foreign Language Open Sources DDS&T			
			25X1
Maurice	Linton		

Attachments: as stated

O/COMPT/IG	(17 April 1981)	25 X 1
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The Director of Central Intelligence

Washington, D.C. 20505

81-873

TAB A

Intelligence Community Staff

26 March 1981

MEMORANDUM FOR: National Foreign Intelligence Program Managers

SUBJEÇT:

Production Enhancement Initiatives, FY 83-84

- l. Program Managers intending to submit production enhancement initiatives for consideration during the FY 83 budget cycle should do so no later than 3 July 1981 for selection by 31 July. The date was recommended by the selection panel last year in order to avoid the rush that occurs during program review. At the time of submission, Program Managers are requested to nominate an individual to serve on the selection panel which will recommend initiatives to the Interagency Production Working Group.
- 2. The panel also recommended last year that the decision criteria be made more explicit for purposes of both preparing submissions and choosing among them. Accordingly, a list of five suggested criteria and a definition of each is attached as well as a recommended weighting scheme. It should be emphasized that this list is preliminary, and that the first task of the panel will be to agree on the criteria and their relative importance.

;	3.	Enhance	ement i	nitiat	ives s	should b	e lis	ted i	n pri	iority	seque	nce,	and	
submi:	tted	l in ter	ı copie	s to t	his of	ffice.	Progr	am Ma	nager	's als	o are	asked	l to	
submi	t a	report	descri	bing t	he imp	olementa	tion	of th	e FY	81-82	initi	ative	s, b	ut
need 1	not	report	on the	statu	s of p	olanning	for	the F	Y 82-	-83 in	itiati	ves a	it th	15
time.														

		25 X 1
ν	Director	

Attachments: a/s



PRODUCTION ENHANCEMENT MULTI-ATTRIBUTE UTILITY MODEL-CRITERIA

<u>Ingenuity</u> is intended to measure the originality of a project apart from consideration of its chances of success. The intent of the program is to provide venture capital for projects that would not normally be able to compete, because of their speculative nature, with more conventional programs.

<u>Priority</u> is intended to measure the relative importance of the product and/or its application. It should recognize that some subjects, because of policy level interest, are of greater interest than others.

Applicability is intended to measure the degree to which the project has broad application. Broad in this context refers to either a methodology which has application elsewhere in the Community, or an enhanced level of capability that supports efforts elsewhere. Examples of intended applications should accompany each submission.

Cost is to be computed on a two year basis. Cost should not be a dominant factor, but lower-cost items should receive a slight edge over higher-cost items.

<u>Probability of Success</u>, like cost, should be a factor, however, a questionable probability of success should not be prejudicial to a particularly imaginative idea.

PRODUCTION ENHANCEMENT MULTI-ATTRIBUTE UTILITY MODEL - WEIGHTING

Attribute	Ranking	Weighting	Normalized <u>Weighting</u>
Ingenuity	1	10	•32
Priority	2	8	.26
Applicability	3	7	.23
Cost	4	4	.13
Probability of Success	5	2	.06

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III. DESCRIPTION OF PROJECT:

a. Statement of need:

Much is said about improving the quality of analysis. Most of the proposals made thus far have addressed specific subjects or areas of analysis. Many of these proposals have considerable merit, but taken together they constitute a patchwork approach to improving analysis. Such an approach will not suffice to guard against intelligence failures when dealing with new subjects and unfamiliar situations. This proposal is different, because it addresses the fundamentals of intelligence production.

It has been proposed a number of times that analysis is basically a matter of building and manipulating models. It is postulated that formal, explicit uses of models would be far better than the instinctive, informal uses of conceptual models which are more common in the analytical community. If analysts were more formal in their use of models, they would make fewer errors in logic and reasoning, and the interdisciplinary exchange of data and hypotheses would be much more effective.

The arguments in favor of formal analytical methods are persuasive, but for the most part they have been neither tested nor used. Furthermore, it is difficult to develop formal methods without better knowledge of the less formal techniques already used by successful analysts. Our lack of systematic knowledge of how our best analysts do their job is a critical weakness, because without it there is little prospect for improving analytical skills of the average analyst.

b. Who will accomplish:

The proposed intelligence production laboratory would be operated by existing ORD staff personnel with external contract assistance.



A critical element in establishing an experimental center is finding a group of analysts who can devote part of their time to experimental activities. Fortunately there is a group of analysts who have the ideal skills for the job and who could be made available without an immediate drain on intelligence production. They are the exceptional analysts chosen for the DCI Fellow's Program. It would be quite reasonable to require that the DCI fellows, who have been singled out for their exceptional achievement, make their special knowledge and skills available to the rest of the production community. Participation in the laboratory would have considerable benefits for the analytical subjects. They would sharpen and refine their skills in the process of passing them on to the research team and would have access to advanced analytical tools to pursue their own analytical interests.

c. What is to be developed:

The laboratory will develop formal analytical techniques and supporting computer-based tools. Formal techniques will cover a number of broad topics including the following:

- o Differentiation between facts, hypotheses, models, and assumptions.
- o Codification of inference rules with guidelines for their use.
- o Probabilistic inference modeling.
- o Recognizing and countering deception.
- o Effective communication of intelligence findings.
- o Simultaneous application of models from several analytical disciplines.
- o Logical verification of complex analytical arguments.

d. Time phasing:

In the first year we will identify more precisely the formal methods to be tested. We will also assemble the resources needed to test these methods in the laboratory and obtain contract help to complement ORD's in-house capabilities. The experimental laboratory will begin to operate in the second year with a small group of analysts. The laboratory will be fully operational in the third year.



The products in the first year will be published compilations of formal methods along with assessments of their relevance to improving analysis. Some analytical groups might find this information useful even in advance of laboratory verification. By the end of the second year, the center will have begun to publish reports describing formal methods together with evaluations of their utility. Individual analysts who have participated in the laboratory will be conveying their experience to their colleagues.

IV. INTELLIGENCE COMMUNITY APPLICABILITY:

The laboratory will concentrate on techniques of the most general utility, and laboratory findings will be made available to the entire Intelligence Community. The only limitation on the applicability of the results will be the availability of computer-based tools needed to apply some of the new methods.

V. INTELLIGENCE CONSUMER BENEFITS:

The laboratory will benefit intelligence consumers through the production of improved intelligence products which have been made more comprehensible and easier to use. Products will be broader in scope following from improved interdisciplinary methods developed in the laboratory. Products will be more reliable because analysts will make fewer procedural errors. The dangers of being fooled by deception will be less.

VI. PROBABILITY OF SUCCESS:

The probability of developing new analytical methods which work better than old ones is very high. The probability that analysts will use the new methods is more difficult to assess. That probability is enhanced by starting the methods out with a group of prestige analysts. Much will depend on the attitudes of upper-level managers in the analytical community. They could instill interest in using new analytical techniques. Also, the use of the new methods developed would be improved if they have proven successful in initial applications and are utilized by the analysts who cooperate with the laboratory.